

**DU PONT****MATERIAL SAFETY DATA SHEET****IDENTIFICATION****Name**

Sulfuric Acid, various strengths, 77-100%

**Synonyms**

Sulphuric Acid

**CAS Name**

Sulfuric Acid

**I.D. Nos./Codes** NIOSH Registry No. WS 56000

Wiswesser Code WSQQ

**Manufacturer/Distributor**

E. I. Du Pont De Nemours &amp; Co., (Inc.)

**Address**

Wilmington, DE 19898

**HAZARDOUS COMPONENTS****Material(s)**60° Tech.  
66°, 1.835 Electrolyte  
Reagent  
98, 99 & 100%**PHYSICAL DATA****Boiling Point, 760 mm Hg**

193-327° (379-621°F)

**Specific Gravity**

1.706 - 1.839 @ 60°F

**Vapor Density**

~ 3.4

**% Volatiles by Vol.**

0% @ 70°F

**Form**

Liquid

**Appearance** Clear to  
turbid, oily liquid**pH Information**

&lt; 1

**FIRE AND EXPLOSION DATA****Flash Point****Method**

Non-flammable

**Flammable Limits in Air, % by Vol.**

Will not burn.

**Fire and Explosion Hazards** Reacts with most metals, especially when diluted, to yield flammable hydrogen gas.**Extinguishing Media** Water, dry chemical or carbon dioxide (for fires in area). Do not get water in tank.**Special Fire Fighting Instructions** Generates heat upon addition of water, with possible splattering. Wear full protective clothing (see Protection Information on back of page). Use care not to ignite hydrogen gas which may accumulate from reaction with metal.**Chemical Family**

Mineral Acid

**CAS Registry No.**

7664-93-9

**Formula:**H<sub>2</sub>SO<sub>4</sub>**Product Information and Emergency Phone**

(302) 774-2421

**Transportation Emergency Phone**

(800) 424-9300

**Approximate %**77.7%  
93.2%  
96.0%  
98, 99 & 100% respectively**Melting Point**

-35° to + 10.6°C (-31° to + 51°F)

**Vapor Pressure**

&lt; 0.3 @ 25°C; &lt; 0.6 @ 37.7°C

**Solubility in H<sub>2</sub>O**

Complete

**Evaporation Rate (Butyl Acetate = 1) < 1****Color** Colorless to  
light brown**Odor**  
None**Octanol/Water Partition Coefficient****Autoignition Temperature**

Lower

Upper

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information set forth herein is furnished free of charge and is based on technical data that Du Pont believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under or a recommendation to infringe any patents.

## HAZARDOUS REACTIVITY

### Instability

Stable. Will react with many materials.

**Incompatibility** Combustible materials; oxidizing materials, organic peroxides, strong reducing agents, powdered metals, cyanides, carbides, chlorates, nitrates, fulminates, picrates, sulfides.

**Decomposition:** Releases sulfur dioxide at extreme high temperature. Reaction with above may release toxic gases, such as hydrogen cyanide or hydrogen sulfide.

**Polymerization:** None

## HEALTH HAZARD INFORMATION

**Exposure Limits** Air Concentrations: Time Weighted Average (OSHA) = 1 mg/m<sup>3</sup>

**Routes of Exposure and Effects:** Causes severe burns of skin, eyes and all body tissue. Ingestion causes severe burns of mouth, esophagus and stomach. Inhalation of vapors or mists may cause respiratory irritation. Long term over-exposure to vapors or mists may result in damage to teeth.

**First Aid:** In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. If swallowed, give large quantities of water until physician is contacted. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. Have patient lie down and keep quiet. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician.

## PROTECTION INFORMATION

### Ventilation

Keep in well ventilated room. Use only with adequate ventilation.

**Personal Protective Equipment** Coverall chemical splash goggles, rubber or plastic gloves, rubber protective footwear, full rubber chemical suit.

### Other

Respiratory protection not required for normal use.

## DISPOSAL PROCEDURES

**Spill, Leak or Release:** If possible, stop flow. Dike large spills. Neutralize spills with lime or soda ash and flush to waste water treatment system. Wear protective clothing if necessary to enter spill area.

**Waste Disposal** Comply with Federal, State and local regulations. If approved, neutralize and drain to sewer to waste water treatment system.

## SHIPPING PRECAUTIONS

**Transportation** DOT Shipping Name - Sulfuric Acid. DOT Hazard Class - Corrosive Material. STCC Code = 4930040. UN No. 1831. IMCO Class 8.

**Shipping Containers** Tank cars, tank trucks, 55 gal stainless steel drums.

**Storage Conditions:** Keep out of sun and away from heat. Keep fire, sparks and flame away from opening. Keep container tightly closed and closure (drums) up to prevent leakage. Loosen closure carefully. Do not use pressure to empty. Relieve internal pressure when received and at least weekly thereafter. Before moving container be sure closure is securely fastened.

### REFERENCES AND ADDITIONAL INFORMATION

Do not wash out container or use for other purposes; replace closure and return with empty container.

Do not get in eyes, on skin or clothing.

Avoid breathing vapor or mists.

Do not add water to contents while in container because of violent reaction.

Wash thoroughly after handling.

**REFERENCES:** Du Pont Sulfuric Acid Data Sheet.

Du Pont Sulfuric Acid Storage & Handling Bulletin.

Du Pont Sulfuric Acid Commodity Distribution Data.

